

IN THE CLAIMS:

Claim 1 (original): A carbonator, comprising:

an oblong shaped housing;

a liquid inlet port disposed on the housing for inletting a liquid from a liquid source;

a gas inlet port disposed on the housing for inletting gas from a gas source; and

an exit port disposed on the housing.

Claim 2 (original): The carbonator according to claim 1, wherein the oblong shaped housing creates an increased gas/liquid interaction area for absorption by the liquid.

Claim 3 (original): The carbonator according to claim 1, wherein the gas is carbon dioxide.

Claim 4 (original): The carbonator according to claim 1, wherein the liquid is water.

Claim 5 (original): The carbonator according to claim 2, wherein the mixture exiting the carbonator is carbonated water.

Claim 6 (original): The carbonator according to claim 1, wherein the housing comprises an oblong shell and two ends.

Claim 7 (original): The carbonator according to claim 6, wherein the oblong shell provides an increased exterior surface area, thereby increasing the heat removal capability.

Claim 8 (original): The carbonator according to claim 6, wherein the oblong shell provides a reduced vertical height component, thereby decreasing the surrounding cold plate thickness requirement.

Claim 9 (original): The carbonator according to claim 1, wherein the liquid and gas mixture is removed through the exit port.

Claim 10 (currently amended): A carbonator, comprising:

a housing;

a film generator assembly disposed in the housing, the film generator assembly including a hemispherical redirector coupled to a cylindrical film generator, wherein the hemispherical redirector includes an inner surface, and further wherein, the cylindrical film generator includes apertures to aid the liquid in taking the shape of a film;

a gas inlet port disposed on the housing, the gas inlet port coupled with a gas source for communicating gas into the housing;

a liquid inlet port disposed on the housing, the liquid inlet port coupled with a liquid source for communicating liquid onto the inner surface of the hemispherical redirector to ~~the film generator assembly~~, wherein the fluid contacts the inner surface and is redirected onto the cylindrical film generator, thereby forcing assembly forces the liquid into to a film as the liquid moves down the cylindrical film generator, thereby maximizing to maximize the liquid/gas interaction area; and

an outlet port disposed on the housing for delivery of a liquid/gas mixture exterior to the housing.

Claim 11 (original): The carbonator according to claim 10, wherein the gas is carbon dioxide.

Claim 12 (original): The carbonator according to claim 10, wherein the liquid is water.

Claim 13 (original): The carbonator according to claim 10, wherein the mixture exiting the carbonator is carbonated water.

Claim 14-17 (canceled).

Claim 18 (currently amended): A method of increasing the surface area of a liquid for mixing with a gas, comprising:

a. placing a film generator assembly in a chamber filled with a pressurized gas, wherein the film generator assembly comprises a hemispherical redirector coupled with a cylindrical film generator;

~~b. a-~~ spraying the liquid onto an inner surface of a hemispherical redirector ~~into a film generator assembly disposed in a chamber filled with a pressurized gas;~~

c. redirecting the sprayed fluid towards the cylindrical film generator;

~~d. b-~~ generating a film as the liquid moves over the a film generator.

Claim 19 (currently amended): The method according to claim 18, further comprising:

~~e. e-~~ absorbing the higher pressure gas into an increased exposed surface area of the liquid.

Claim 20 (canceled).

Claim 21 (original): The method according to claim 18, wherein the film generator includes apertures to promote the generation of a liquid film.

Claim 22-23 (canceled).

Claim 24 (original): The method of claim 18, wherein the liquid is water.

Claim 25 (original): The method of claim 18, wherein the gas is carbon dioxide.

Claim 26-32 (canceled).